

WHAT IS CLAIMED IS:

1. An SPST (single-pole single-throw) switch for controlling propagation of a high frequency signal between an input terminal and an output terminal, said SPST switch comprising:

a plurality of first field-effect transistor switches connected in parallel, each of which includes a field-effect transistor having its drain and source connected in parallel with an inductor, wherein

each of said field-effect transistors has its ON state and OFF state changed by a voltage applied to a gate of each of said field-effect transistors, and

each of said field-effect transistors has its OFF capacitance cause parallel resonance with said inductor connected at a frequency of the high frequency signal.

2. The SPST switch according to claim 1, wherein said plurality of first field-effect transistor switches are connected in parallel between the input terminal and output terminal.

3. The SPST switch according to claim 1, wherein

the input terminal and the output terminal are connected to each other; and

said plurality of first field-effect transistor switches are connected in parallel between the input terminal and a ground.

4. An SPST (single-pole single-throw) switch for controlling propagation of a high frequency signal between an input terminal and an output terminal, said SPST switch comprising:

a second field-effect transistor switch constructed by connecting an inductor in parallel with a series circuit of capacitor and a field-effect transistor that has its drain or source connected in series with the capacitor, wherein

5 said field-effect transistor has its ON state and OFF state changed by a voltage applied to a gate of said field-effect transistor, and

 said field-effect transistor has its parasitic inductor and said capacitor cause series resonance, and has its OFF
10 capacitance cause parallel resonance with said inductor.

5. The SPST switch according to claim 4, wherein said second field-effect transistor switch is connected between the input terminal and the output terminal.

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6. The SPST switch according to claim 5, wherein a plurality of second field-effect transistor switches are connected in parallel between the input terminal and the output terminal.

20 7. The SPST switch according to claim 4, wherein

 the input terminal and the output terminal are connected to each other; and

 said second field-effect transistor switch is connected between the input terminal and a ground.

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8. The SPST switch according to claim 7, wherein a plurality of second field-effect transistor switches are connected in parallel between the input terminal and the ground.

30 9. An SPDT (single-pole double-throw) switch for controlling

propagation of a high frequency signal between an input terminal and two output terminals, said SPDT switch employing:

a plurality of first field-effect transistor switches as defined in claim 1, which are connected in parallel.

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10. An SPDT (single-pole double-throw) switch for controlling propagation of a high frequency signal between an input terminal and two output terminals, said SPDT switch employing:

a second field-effect transistor switch as defined in claim

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11. An MPMT (multiple-pole multiple throw) switch for controlling propagation of a high frequency signal between a plurality of input terminals and a plurality of output terminals, said MPMT switch employing:

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a plurality of first field-effect transistor switches as defined in claim 1, which are connected in parallel.

12. An MPMT (multiple-pole multiple throw) switch for controlling propagation of a high frequency signal between a plurality of input terminals and a plurality of output terminals, said MPMT switch employing:

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second field-effect transistor switches as defined in claim

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